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EXAMINER

AKHAVANNIK, HUSSEIN

ART UNIT PAPER NUMBER

2621

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/834,920

Applicant(s)

THIEME, ICO

Examiner

Hussein Akhavannik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On pages 3-6, all instances of "US-A-" should be changed to "US".

On page 8, line 23, the claim numbers should be deleted as the claims numbers may change during prosecution of this application.

On page 19, line 9, "(Figure C)" should be changed to "(Figure 5C)".

Appropriate correction is required.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Drawings

3. The drawings are objected to because figures 2, 7, 8, 9, and 41 do not contain descriptive labels. For example, reference number 18 should be labeled "Camera".

The drawings are objected to because figures 4, 5, 6, 27, 28, 28A, 28B, 29, 29A, 30, 31, 32, 33, 34, 34A, and 48 do not contain reference numbers to explain the steps with regard to the specification. The Applicant is respectfully requested to add reference numbers to each step in each flow chart and to include the reference numbers in the specification.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a

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drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 2-5, 7, 15, 21, 23, 27, 30-31, 34-37, 40, and 42, the phrases "for example" or "e.g." or "or the like" render the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Referring to claims 1-42, these claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Examples of indefinite language include, but are not limited to:

In claims 2-42, "characterized" fails to conform with current U.S. practice. The Applicant is advised to use either "comprising" or "consisting".

In claims 5-6, 28, 30-31, 34, and 36-38, the file names recited in these claims should be removed.

In claim 1, line 13, "taking field" should be changed to "field of view".

In claim 1, line 19, "free taking field" is not understood.

In claim 2, lines 5-6, "as attracted thereby" is not understood.

In claim 3, lines 4-5, "plurality of power suppliers of different size printing paper media" is not understood.

In claim 4, line 3, "whereof" is not understood.

In claim 42, line 3, "printed by a systems" is grammatically incorrect.

The lengthy claims have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any additional errors of which applicant may become aware in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 7, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoyt et al (U.S. Patent No. 6,523,034) in view of Biondo et al (U.S. Patent No. 4,891,660), and further in view of Parulski et al (U.S. Patent No. 6,366,316).

Referring to claim 1,

- i. A central computer is illustrated by Hoyt et al in figure 3 by the computer 126.
 - ii. A video acquisition panel is illustrated by Hoyt et al in figure 3 by the image capture 141.
 - iii. A monitor is illustrated by Hoyt et al in figure 3 by the touch screen monitor 128.
 - iv. A video camera is illustrated by Hoyt et al in figure 3 by the video camera 123.
 - v. A banknote reading device is illustrated by Hoyt et al in figure 3 by the vending card reader 127, which is explained to read banknotes in column 5, lines 17-20.
 - vi. A printing means is illustrated by Hoyt et al in figure 3 by the printer 138.
 - vii. A lighting device is illustrated by Hoyt et al in figure 3 by the light 121.
 - viii. A loudspeaker is illustrated by Hoyt et al in figure 3 by the speaker 122.
 - ix. A presence sensor adapted to detect the presence of persons or objects movable through the taking field of the video camera is not explicitly explained by Hoyt et al.
- Hoyt et al explain providing a teaser to potential customers approaching the booth in order to encourage them to use the booth in column 7, lines 13-21. However, Biondo et al explicitly explain a proximity sensor detecting the presence of potential customers within the proximity of the booth, and therefore within the field of view of the camera in column 6, lines 16-25. Once a potential user is identified, Biondo et al explain that an audio amplifier produces speech signals inviting the potential customer to use the booth, thereby increasing the exposure of the booth. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt a presence detector to detect the presence of persons within the field of view of the camera, as

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suggested by Biondo et al, in the system of Hoyt et al because both system as interested in attracting potential customers and a proximity detector increases the exposure of the photo booth of Hoyt et al.

x. Signaling, communication, or radio means arranged between the system and a shop keeper controlling the system, which can be power supplied by electric power and which operatively interact by operating sequences which can be controlled by software programs or modules is illustrated by Hoyt et al in figure 3 by the communications card 139 that is connected to the UPS 145 (power supply). Hoyt et al explain that the processing may be performed through software in column 6, lines 45-55.

xi. The video camera taking images with a free taking field or with "multichromatic" and "dynamic" outer backgrounds is not explicitly explained by Hoyt et al or Biondo et al. However, Parulski et al illustrate a camera capturing multiple images of a user with a free (dynamic) field of view in figure 1 by reference numbers 10 and 14. Parulski et al explain that dynamic field of views are beneficial for identifying the foreground object because the need for a special colored background is removed and the process provides quick and easy results in column 1, lines 37-40 and 55-65. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for a video camera to take images of dynamic field of views, as explained by Parulski et al, in the system of Hoyt et al and Biondo et al because the cropped image of the people and/or objects will be created easily and quickly and the need for a special background is removed.

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xii. The system further comprising an outer PLC operatively coupled to the central computer, banknote reading device, lighting device, presence sensor, and radio means is illustrated by Hoyt et al in figure 3 by the SCSI card 137, which performs programmable logic control.

Referring to claim 2, the system further comprising a visual signaling device mounted on the housing case on a side of the monitor in such a position that as a user instinctively directs his/her face towards the energized LED, the user face will be properly seen by the video camera or displayed on the monitor and the directional LED being coupled to the outer PLC and a loud speaker being further mounted on a side of the LED to operate as a directional loudspeaker for properly automatically locating the user face is illustrated by Hoyt et al in figure 3 by the light devices 121 that are on the same plane as the touch screen monitor 128, the speakers 122, and the video camera 123.

Referring to claim 3, the printing means comprising a single printer adapted to be power supplied by one of a plurality of power suppliers of different size printing paper media and provided for different printed products is illustrated by Hoyt et al in figure 3 by the printer 138 attached to the UPS 145 (power supply). Hoy et al explain printing photographs or stickers in column 4, lines 23-28, corresponding to different printed products.

Referring to claim 4, a printing means comprising a plurality of printers, a number which corresponds to the number of different printing media products which can be printed by the system is explained by Hoyt et al in column 8, lines 5-17.

Referring to claim 7,

- i. Selecting by the user, a view among a plurality of prestored views and for reproducing the view on the screen is illustrated by Parulski et al in figure 1 by reference numbers 28 and 30.
- ii. Selecting by the user, an insertion position for the subject on the view, among a plurality of different positions shown on the screen is explained by Hoyt et al in column 7, lines 36-48.
- iii. Performing by the camera controlled by the user, a taking step for taking a background subject assembly thereon a following cropping step will be performed is illustrated by Parulski et al in figure 1 by reference numbers 12 and 12'.
- iv. Taking the background-subject assembly, the taken background is an instantaneous real background of the free taking field of the video camera or a multichromatic and dynamic background corresponds to claim 1x.
- v. The cropping step being carried out by processing two images, a first image constituted by the image taken by the video camera as the system is turned on or by the background taken without the subject for improving the cropping step by providing a reference background is illustrated by Parulski et al in figure 1 by reference number 18 and a second image formed by the background subject assembly is illustrated by Parulski et al in figure 1 by reference number 12, wherein the subject is 12'.
- vi. A refining step for trimming the contour of the subject insulated by the background is illustrated by Parulski et al in figure 1 by reference number 22.
- vii. A subject translating step wherein the cropped subject is translated to a preselected region of the view and the subject is embedded in the view by physical

replacement, pixel by pixel, of the pixels in the preset region of the view with the pixels of the subject is illustrated by Parulski et al in figure 1 by reference number 32, wherein the view is illustrated in figure 28.

viii. An optional caption or wording insertion step is explained by Hoyt et al in column 7, lines 59-65.

ix. Printing a composite card is explained by Hoyt et al in column 4, lines 23-28.

x. As the system is turned on, self updating the taken background is illustrated by Parulski et al in figure 1 by reference number 14, wherein a new first image is taken for each user. Parulski et al explain that the background image is taken after a preset time to minimize the difference the dynamic background between the two images in column 3, lines 3-25.

Referring to claim 42, composite cards, greeting cards, photo-cards, stickers, visiting cards made and printed according to the system of claim 1 is explained by Hoyt et al in column 4, lines 23-28.

8. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoyt et al in view of Biondo et al and Parulski et al, and further in view of the admitted prior art.

Referring to claim 5,

i. The system further comprising a functional operating architecture comprising the following operating software modules or programs cooperating with one another and controlling the associated components of the system is explained by Hoyt et al in column 6, lines 45-55.

- ii. A module A displaying on the screen different options to be selected by the user, communicating to the system the selections performed by the user and supplying corresponding graphics animations is not explicitly explained by Hoyt et al or Biondo et al or Parulski et al. However, the Applicant explains on page 25, lines 23-28 that module A is well known in the art and that one skilled in the art can easily implement module A. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement module A and all of its functions, as suggested by the Applicant, in the system of Hoyt et al and Biondo et al and Parulski et al because the Applicant explains that it would have been obvious to one of ordinary skill in the art.
- iii. A module B is not explicitly explained by Hoyt et al or Biondo et al. However, Parulski et al explain module B which captures the images generated by the video camera and converts the input video signal by transforming it into an ordered sequence of pixels consisting the mathematics expression of all the geometric patterns present in the considered image (figure 1, reference numbers 14 and 20) and the software module B extrapolating the image of the subject from the background subject assembly and locating the image on the view selected by the user (figure 1, reference number 24), the extrapolation being performed by different analysis (figure 6A, "subtraction to produce difference image") of the different chromatic equivalent area existing between a first image, constituting a reference background (figure 6A, reference number 18) and a second image, formed by the background-subject assembly as taken by the video camera with a free taking field (figure 6A, reference number 12). Parulski et al explain that dynamic field of views are beneficial for identifying the foreground object because the

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need for a special colored background is removed and the process provides quick and easy results in column 1, lines 37-40 and 55-65. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement module B, as suggested by Parulski et al, in the system of Hoyt et al and Biondo et al because the cropped image of the people and/or objects will be created easily and quickly and the need for a special background is removed.

iv. A module C1 and C2 that if the presence sensor does detect movements of objects in the taking field of the camera within a preset time causes the camera to take an encompassing outer environment or taken background is not explicitly explained by Hoyt et al or Biondo et al. However, Parulski et al explain that a taken background is taken ten seconds after a user is removed from the field of view of the camera in column 3, lines 3-25. Parulski et al explain that the background image is taken after a preset time to minimize the difference the dynamic background between the two images. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement modules C1 and C2, as suggested by Parulski et al, in the system of Hoyt et al and Biondo et al because the cropped image of the people and/or objects will be performed more accurately if the difference between the backgrounds in both images is minimized.

v. A module D which sends all the messages to different components of the system during the acquisition by the video camera and the outer PLC for controlling a lighting device and the operations of the banknote reading device and with the printer, thereby controlling a proper printing process wherein all the message exchange between the

module D and the module B occurring through the registry of the computer, the message flow being a bi-directional message flow is not explicitly explained by Hoyt et al or Biondo et al or Parulski et al. However, the Applicant explains on page 25, lines 23-28 that module D is well known in the art and that one skilled in the art can easily implement module D. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement module D and all of its functions, as suggested by the Applicant, in the system of Hoyt et al and Biondo et al and Parulski et al because the Applicant explains that it would have been obvious to one of ordinary skill in the art.

vi. A module E being arranged in the outer PLC and controlling the timers and the presence sensors actuating and allowing the taking of the taken backgrounds turning the lighting device on as the subject is taken, operating the loudspeaker, and communicating to the computer an amount introduced into the banknote reading device is not explicitly explained by Hoyt et al or Biondo et al or Parulski et al. However, the Applicant explains on page 25, lines 23-28 that module E is well known in the art and that one skilled in the art can easily implement module E. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement module E and all of its functions, as suggested by the Applicant, in the system of Hoyt et al and Biondo et al and Parulski et al because the Applicant explains that it would have been obvious to one of ordinary skill in the art.

Referring to claim 6, the directional LED being operatively controlled by the module D and by the outer PLC is not explicitly explained by Hoyt et al or Biondo et al or Parulski et al. Hoyt et al illustrated a light (corresponding to a directional LED) 121 connected to a PLC 137 in

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figure 3. However, the Applicant explains on page 25, lines 23-28 that module D is well known in the art and that one skilled in the art can easily implement module D. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for a directional LED being operatively controlled by the module D, as suggested by the Applicant, in the system of Hoyt et al and Biondo et al and Parulski et al because the Applicant explains that it would have been obvious to one of ordinary skill in the art.

9. Claims 8-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoyt et al in view of Biondo et al and Parulski et al, and further in view of well known prior art.

Referring to claims 8-41, the details of the working files (including the reference background and the background-subject assembly, noise removal (including suppression of the insulated and spike pixels), chromatic pixel values, adding a caption, JPEG compression format, safety systems, and optical presence sensors are all well known in the art (official notice) and not an essential part of the applicant's invention. The essence of the applicant's invention is cropping a subject from a first background image and a second background subject image as illustrated by Parulski et al in figure 1. For example, the applicant explains that the functions of module A, C1, D, and E are well know in the art on page 25, lines 23-28 of the specification. Furthermore, Parulski et al illustrate noise removal in figures 6A and 6B, specifically by reference number 118. The specifics of the working files, including storage memory and buses are illustrated by Parulski et al in figure 4B. Security systems and optical presence sensors are illustrated by Courtney (U.S. Patent No. 5,969,755) in figures 5, 6, and 27. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

perform the functions recited in claims 8-41 in the system of Hoyt et al, Biondo et al, and Parulski et al.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Courtney (U.S. Patent No. 5,969,755) – To exhibit security systems and optical presence sensors as explained in the abstract and illustrates in figures 5, 6, and 27.

Massarsky (U.S. Patent No. 5,500,700) – To exhibit a photography booth which allows the user to select one of a plurality of views are explained in the abstract.

Steffano (U.S. Patent No. 5,764,306) – To exhibit replacing the background of an image by XORing the background in real time as illustrates in figures 1-3.

Yang et al (U.S. Patent No. 5,923,380) – To exhibit separating a subject from a background by infrared keying as explained in the abstract.

Wolfe et al (U.S. Patent No. 5,446,515) – To exhibit an automatic picture taking machine as explained in the abstract.

Goldberg et al (U.S. Patent No. 6,526,158) – To exhibit taking a picture due to the presence of an object as explained in column 12, lines 28-61 and deleting the background from an image in column 23, lines 39-63.

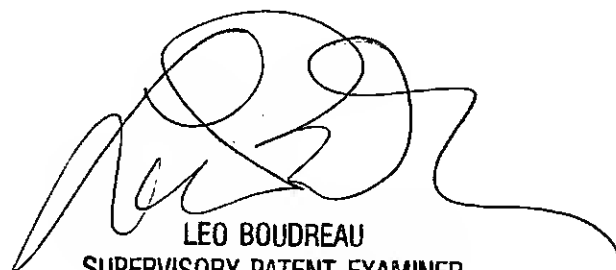
Nachshon et al (U.S. Patent No. 5,668,605) - To exhibit removing the background from an image as explained in the abstract.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein Akhavannik whose telephone number is (703)306-4049. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H. Boudreau can be reached on (703)305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hussein Akhavannik H.A.
June 27, 2004



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